WHEEL BALANCER

READ THIS ENTIRE MANUAL BEFORE OPERATION BEGINS

RECORD HERE THE FOLLOWING INFORMATION

WHICH IS LOCATED

ON THE SERIAL NUMBER DATA PLATE

Serial No. _____

Model No. _____

Manufacturing date. _____

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IMPORTANT SAFETY INSTRUCTIONS

Read these safety instructions entirely!

Read and understand all safety instructions before operating machine

Precaution in installation and operation

*Don't place the detector in an extreme hot or cold condition, and avoid setting the machine close to the heating radiator, tap, air humidifier and stoves.

*Don't place the detector near the window under the direct sunshine .In case of inevitable, the window curtain, shield and hood should be used to shade the detector.

*No contact of the machine is allowed with dust, ammonium, alcohol, diluents and pulverized adhesive, etc.

*The detector should be installed on a leveled ground.

*Never place it close to the air compressor or any substance that may generate vibration.

*During the operation don't close to the detector unless the operator.

*The dynamic balance detector should use separated power socket. Don't connect any other wire in this socket. Attention must be paid to the reliable grounding, if there is no grounding connection in the socket, it must be added before connect with the power source.

*The wire line of dynamic balance detector should be prevented from stepping on.

*A space of 50 cm width should be left between the wall and detector to ensure the ventilation for heat. Spaces also should be left on the left and right sides of the machine for operator to operate the machine without obstacle.

*Contact with the special service man for maintenance before you have to move the dynamic balance detector.

Call your attention to the following problems

*Never dismount or refit the dynamic balance detector by yourself.

*The part of rotational shaft should be prevented from any strike.

*The dynamic balance detector can be restarted only 5 seconds later after shut down.

*On the top of dynamic balance detector never put many heavy substances.

*Please refer the content of self-calibration in case of abnormal operation .Cut off the power supply and pull out the plug immediately, if the noise, smoke or any other accidents take place suddenly, then inform the relevant service man.

*In front of the power socket of the dynamic balance detector, space must be left so that you can rapidly pull out the plug.

*The dynamic balance detector can't be used beyond the scope of its functions stipulated in the manual.

1.Technical Data

Max. wheel weight 70kg

Cycle time <10s

Power supply 220V/110V 50/60HZ

Working temperature -5℃-----50℃

Balancing function DYNAMIC、STA、ALU1、ALU2、ALU3

Balancing precision 1g

Rim diameter 10"---24"

Rim width 1.5"---20"

Net weight 150kg

2.The balance weight plumb (block) used in the detector

2.1Stacked package of balance weight plumb.

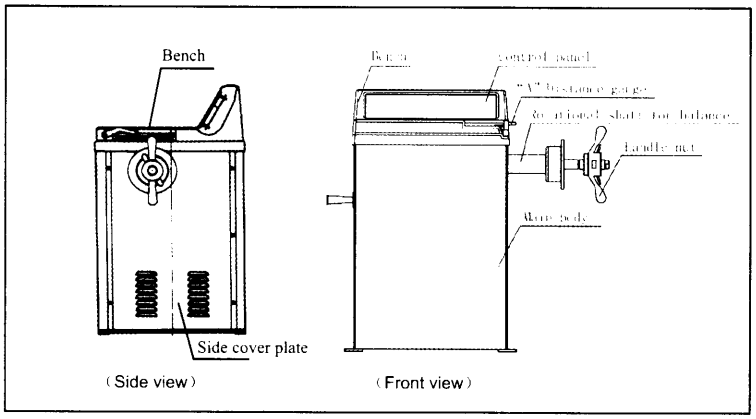
(Ordinary steel rim section and aluminum alloy rim section)

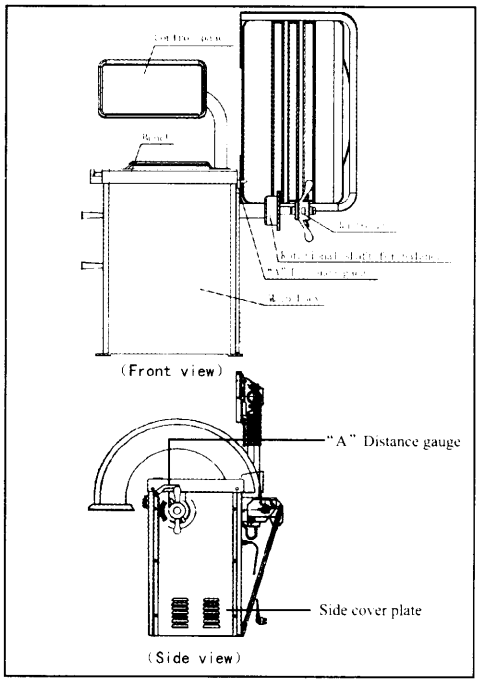
2.2Stuck balance weight plumb.

(Aluminum alloy rim section)

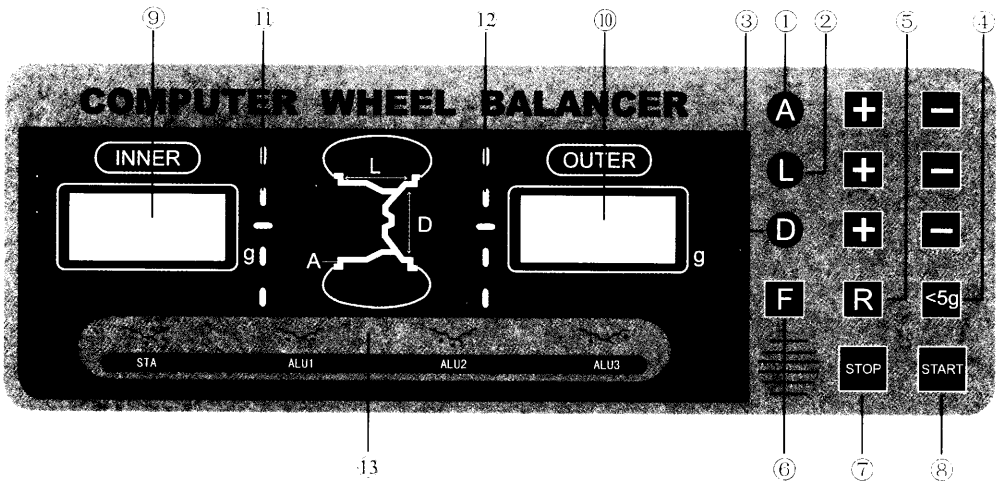
Note: The errors in balance weight plumb directly affect the tested result of the detector.

3.Main components of CB series dynamic balance detector





4.Knobs and indicator Lamps on Controlling Panel



1. A Distance setting knob. Press down + − to adjust the setted distance value on indicator OUTER

2. L Width setting knob. Press down + − to adjust the setted width value on indicator. OUTER

3. D Dia setting knob. Press down + − to adjust the setted Dia value on indicator. OUTER

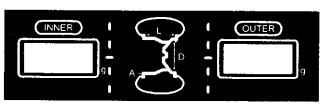
4. <5g High precision balance knob. Indicator OUTER displavs " 00 " when unbalance<5g,press down this knob to show the left unbalance value.

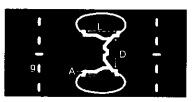
5. R Knob for automatically test the inputting value.

6. F Knob for static balance and selecting the position & mode of ALU balancing block.

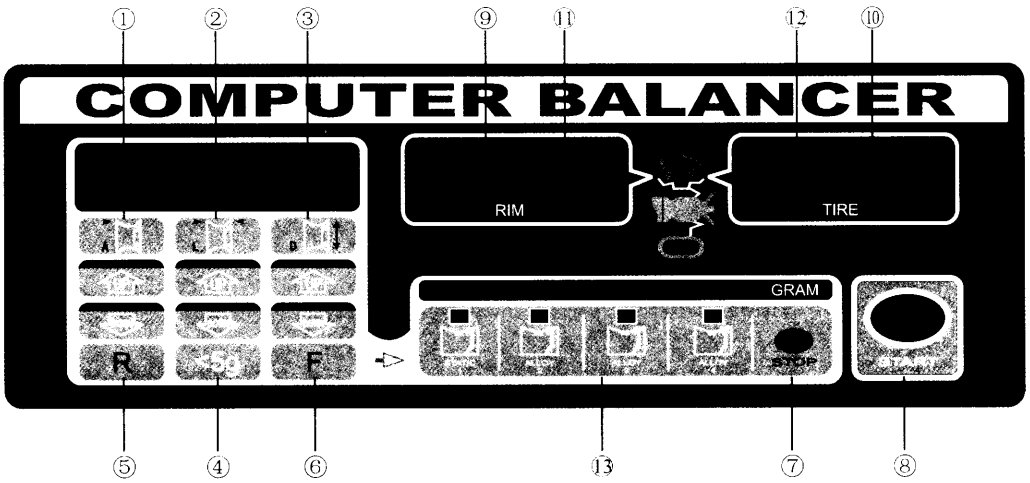
7. STOP Knob for emergency shut down.

8. START Starting knob.

9.10.  Value display indicator.

11.12.  Positioning lamp for unbalance point.

13. Balancing block mode indicating lamp.



1. Distance setting knob. Press down UP DOWN to adjust the setted distance value on indicator. TIRE

2. Width setting knob. Press down UP DOWN to adjust the setted width value on indicator. TIRE

3. Dia setting knob. Press down UP DOWN to adjust the setted Dia value on indicator. TIRE

4. <5g High precision balance knob. Indicator TIRE displays " 00 " when unbalance<5g, press down this knob to show the left unbalance value.

5. Knob for automatically test the inputting value.

6. Knob for static balance and selecting the position & mode of ALU balancing block.

7. Knob for emergency shut down.

8. Starting knob.

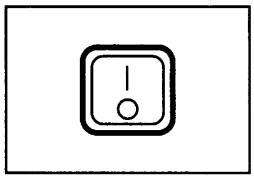
9.10. Value display indicator.

11.12. Positioning lamp for unbalance point.

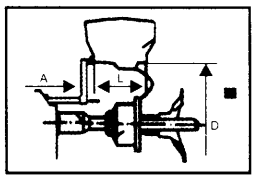
13. Balancing block mode indicating lamp.

5.Basic operation of balance detector and selection of functions

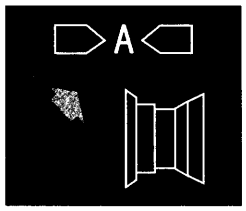
5.1( )wheel balancer



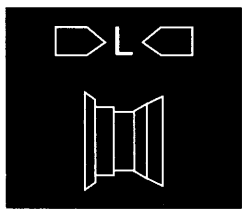
5.1.1 Turn on the power switch on the left side of the detector, indicator 9 displays "CB2", 10 show " 00 " , and then the indicators 9,10 change to"A", " 8.0 "



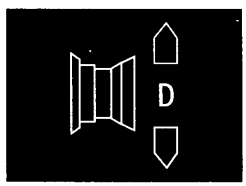
5.1.2 Mounting of tire
Select the positioning cone that fits the central hole of the rim, to install it at the center of rotational shaft, then tighten and lock it with the handle nut.
(The maximum weight of wheel should not more than 70kg.)



5.1.3 Input the value A
Pull the distance gauge A to the position, where the balance block is to be setted .
Press + − knobs and input the reading on the gauge into indicator 10, meanwhile the indicator 9 should display the value as " A " .



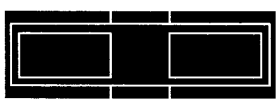
5.1.4 Input the value L
Use the width gauge that taken from the accessories to measure the width between two sides of the rim, press + − knobs to input the reading on the gauge into the indicator 10, meanwhile the indicator 9 should display the value as " L " .



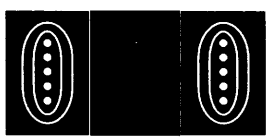
5.1.5 Input the value D
After the value of Dia. confirmed, press + − nobs to input the value into the indicator 10, meanwhile the indicator 9 should display the value as " D " .

5.1.6 Press the starting knob to start the operation; several seconds later, the detector wil l automatically stop. (Pull down the protection hood, the detector of B type will automatically start up.)

5.1.7 Display the unbalance value
The value displayed by indicators 9 and 10 is the value of unbalance, rotate the wheel by hand, the positioning lamps 11,12 will constantly flash.



5.1.8 Right till all lamps in a set of 11 or 12 start to light, it means that the position of rim's highest point is the unbalance point. Among which the 11 represents the value of internal rim side and the 12 represents the value of external rim side.



5.1.9.At the unbalance point of the rim, mount a balance block corresponding to the measured value, the indicator 9 represents internal side of the rim, while the indicator 10 represents the external side of the rim.

5.1.10 Repeat the procedure 6-10 till the indicators 9 and 10 show " 00 " .

5.1.11 Dismount the tire from the rotational shaft, the balance detection is now finished.

Selection of functions

This lamp lighting shows that it is adapt to the tires used for motorcycle, or those wheels at both sides of which placing the balance block is not allowed.

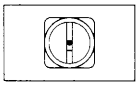
This lamp lighting shows that it is adapt to the alloy rim, at the shoulder of which the balance block can be stuck on.

This lamp lighting shows that it is adapt to the alloy rim, on the external hidden side of which the balance block can be stuck on.

This lamp lighting shows that on the external side of which the balance block can be stuck on, and at the internal side of the rim, the balance block can be braced or inserted.

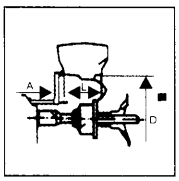
When the four sets of indicators all went out, it shows the standard balance. (When ever you start the detector, the computer automatically set at such state.)

5.2( )WHEEL BALANCER



5.2.1 Turn on the power switch on the front panel.

The indicator 9 displays "850"and then indicators 9.10 change into "A","8.0".

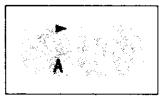


5.2.2 Mounting of tire:

Select the positioning cone that fits the central hole of the rim, to install it at the center of rotational shaft, then tighten and lock it with the handle nut.

(The maximum weight of wheel should not more than 70kg)

5.2.3 Input the value "A"

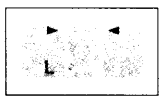


Pull the distance gauge A to the position, where the balance block is to be setted.

Press

knobs and input the reading on the gauge into indicator 10, meanwhile the indicator 9 should display the value as "A"

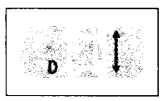
5.2.4 Input the value "L"



Use the width gauge that taken from the accessories to measure the width between the two sides of the rim, press

knobs to input the measured width into indicator 10, meanwhile indicator 9 should display the value as "L"

5.2.5 Input value "D"



After the value of rim Dia confirmed, press

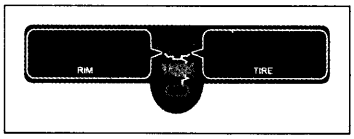
knobs to input the value into the indicator 10, meanwhile the indicator 9 should display the value as "D".

5.2.6 Press the starting knob to start the operation.

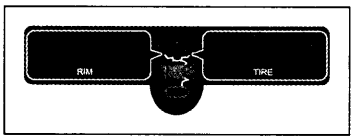
7 seconds later after starting, the detector will automatically stop. (Pull down the protection hood, the detector of B type will automatically start up.)

5.2.7 Display the value of unbalance

The value displayed by indicators 9 and 10 is the value of unbalance. Rotate the wheel by hand, the positioning lamps 11 and 12 will constantly flash.



5.2.8 Right till all lamps in a set of 11 or 12 start to light that means the highest point of rim is the unbalance point. Among which the indicator 11 represents the value of internal side of the rim and the 12 represents the value of external side of the rim.

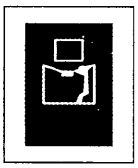


5.2.9 At the unbalance point of the rim, mount a balance block corresponding to the measured value. The indicator 9 represents internal side of the rim, while the indicator 10 represents the external side of the rim.

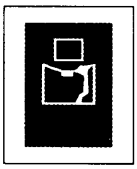
5.2.10 Repeat the procedures 6-10 untill the indicators 9 and 10 show "00"

5.2.11 Dismount the tire from the rotational shaft, the balance detection is now finished

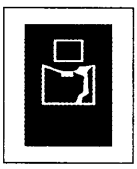
Selection of functions



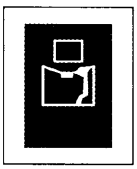
This lamp lighting shows that it is adapt to the tires that used for motorcycles, or those wheels on both sides of which placing the balance block is not allowed.



This lamp lighting shows that it is adapt to the alloy rim, at the shoulder of which the balance block can be stuck on.



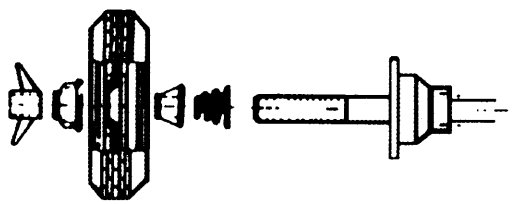
This lamp lighting shows that it adapts to the alloy rim, on the hidden external side of which the balance block can be stuck on.



This lamp lighting shows that on the external side of which the balance block can be stuck on, and on the internal side of the rim the balance block can be braced or inserted.

When the four sets of the lamps all went out, it shows a state of standard balance (Whenever you start the detector, the computer will automatically set at such state.)

6.Counter positioning



Counter positioning method is a widely used method. It is applicable to common steel rims and aluminum alloy rims. Especially for the new rims, and it can provide high balance precision.

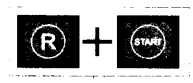
Procedures of counter positioning:

Place the spring with the bottom toward the balancer → Place a suitable cone → Place the wheel → Plastic cup → Quick bolt cap

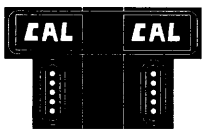
7.Self-calibration

When there is doubt in the precision of the measured value this function can be used. Don't shut down the detector during the operation, because it may cause the inputting of the wrong value. (Don't arbitrarily use this function)

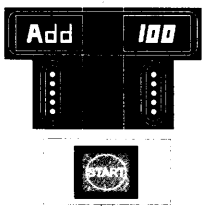
Procedures in operation:



1.Mount the balanced tire.



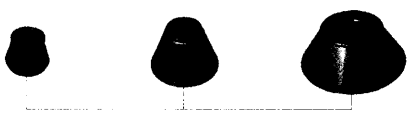
2.Press down the " R " knob, after about half a second, press the starting knob. The indicators 9 and 10 show " CAL " - " CAL " , the positioning lamp of unbalance will flash several seconds, and then went out automatically.



3.Press down the starting knob, after several seconds the detector automatically stop, the indicators 9 and 10 show " Add " - " 100 " . Add a balance block of 100g at any point of external side of the rim.

4.Press this knob, the wheel will rotate, the indicators 9 and 10 show "End"-"CAL", the calibration is complete.

8.Standard accessories of CB Series Tire Dynamic Balance Detector



Positioning cones for axis

Thread rod

Plumb100g

Calipers

Quick bolt cap

Counterweight nip

Spring

Plastic cup

9.Optional accessories of CB Series Tire Dynamic Balance Detector

Protection cover

Extra-large cone

flange

10.Standard accessories (List)

*Counterweight nip	1Piece
*Caliper	1Piece
*Positioning cone for axis	3Pieces
*Quick bolt cap	1Piece
*Thread rod	1Piece
*Plumb 100g	1Piece
*Plastic cup	1Piece
*Spring	1Piece

11.Code in Computer Self-diagnosis of CB Series Balance Detector

Trouble in phase generator or power plate, replace it.

Rotation speed is too low or wheel hasn't been mounted (with tire).

Too big unbalance, try other wheel

Errors in power system, rotational direction is not right.

Nonsense.

Memory damaged or signal lost, calibrate again or renovate.

The procedure of calibration is not appropriate or computer plate or sensor damaged.

12.Trouble shooting

Symptom	Cause	Solution
No display on the screen after starting	1.External power malfunction. 2.Power plate malfunction 3.Loosen connection between computer plate and power plate. 4. Computer plate malfunction.	1.Check the external power supply 2.Replace the power plate. 3.Check the plug of the connecting line. 4.Replace the computer plate.
The display is normal,but the starting switch and the inputing knobs heads A,L,C is malfunction	1.The connection of the switch is not well. 2.Dead computer.	1.Open the cover and tighten the plug of the touch switch. 2.Start the machine again.
The display is normal, but the brake does not work.	1.Loosen connection between computer plate and power plate. 2.Power plate malfunction 3.Computer plate malfunction.	1.Tighten the connecting line between the computer plate and the power plate. 2.Replace the power plate. 3. Replace the computer plate.
The starting is slow with failure in braking and imprecision in balance.	Driving belt is too loose.	Adjust the position of the motor or change the driving belt.
The operation is normal, but the balance value is not accuracy.	1.The body of machine is placed unstably. 2.Affected by the cone or quick bolt cap. 3.The wheel is not mounted tightly. 4.The power supply inside the machine is unstable. 5.Power voltage fluctuate violently. 6.The calibration value changed. 7. The value inside the machine changed.	1.Get rid of the problem, according to the testing result. 2.Re-tighten the quick bolt cap. 3.Check the power supply. 4.The operator can adjust the power supply by self. 5.Replace the computer plate if necessary. 6.Re-calibrate it according to the User's Manual. 7.Input the data of dis,In-I,SFA again, according to the marks on the machine,then calibrate it again to check if the machine work normally.